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Title : Whale watching from a mother's perspective: positioning of humpback whale (Megaptera novaeangliae) mother/calf pairs in relation to vessels

Category : Behavior

Student : Not Applicable

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Abstract : Studies of vessel harassment are often limited by the ambiguity of the animal responses observed. We hypothesized that a mother would be the most sensitive to negative stimuli and would position herself between a vessel and her calf if she perceived a potential threat. The positioning of humpback whale mother/calf pairs in relation to vessels was investigated in two areas: the West Indies breeding ground (WI, 1992-1993) and the Gulf of Maine feeding ground (GOM, 1997-2001). WI calves were <2 months old and their mothers were presumed to have had a relatively low lifetime exposure to whale watching. GOM calves were 3-9 months old and their mothers had been documented from whale watching vessels on at least 119 days (SD=86.8) and 12 separate years (SD=3.9) on average. Approaches in both areas were performed using a directed research platform and standard approach protocols. The position of the mother with respect to the calf and the boat was noted when both whales were visible in at least one lateral identification photograph. Sixty-seven percent (n=18) of WI mothers were positioned between their calves and the research vessel. In contrast, only 30% (n=14) of mothers were in this position in the GOM. This difference was statistically significant (χ^2=6.51, p=0.01, DF=1). As switching positions should be a relatively low cost reaction for both animals, it was anticipated to be a sensitive measure of disturbance. The tendency for calves to travel on the inside in the GOM suggests a combination of lower maternal concern and greater calf curiosity than observed in the West Indies, despite the high level of whale watching activity. While this is likely the result of acclimation, we can not exclude the possibility that humpback mothers become less sensitive to potentially negative stimuli as their calves age.